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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WOLFGANG DENKER

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Appeal 2009-000480  
Application 10/528,324  
Technology Center 3700

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Decided:<sup>1</sup> July 30, 2009

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Before JENNIFER D. BAHR, LINDA E. HORNER, and  
STEFAN STAICOVICI, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*

DECISION ON APPEAL

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

### STATEMENT OF THE CASE

Wolfgang Denker (Appellant) seeks our review under 35 U.S.C. § 134 of the Examiner's decision finally rejecting claims 1-4. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

### SUMMARY OF DECISION

We AFFIRM.

### THE INVENTION

The Appellant's claimed invention is a device for bending the rolls in a rolling stand comprising several rolls with the use of bending blocks. Spec. 1:3-5. Claims 1 and 4, reproduced below, are representative of the subject matter on appeal.

1. Device for bending the rolls in a rolling stand comprising several rolls with the use of bending blocks, which are mounted at the run-in end and the runout end between the roll chocks and the housing windows and can be acted upon by control elements, wherein a piston-cylinder (7) is assigned to the bending blocks (5, 5a) of one of the mill housings (6), and a vertical positioning mechanism (10) is assigned to the bending blocks (5', 5a') of the opposite mill housing (6'), the vertical positioning mechanism (10) being configured as a spindle-type lifting gear unit.

4. Device for bending the rolls in a rolling stand comprising several rolls with the use of bending blocks, which are mounted at the run-in end and the runout end between the roll chocks and the housing windows and can be acted upon by control elements, wherein a piston-cylinder (7) is assigned to the bending blocks (5, 5a) of one of the mill housings (6), and a vertical positioning mechanism (10) is assigned to the bending blocks (5', 5a') of the opposite mill housing (6'), wherein the vertical positioning mechanism (10) is designed as wedges with restricted guidance, as a cylinder with clamping head and position sensor, or as an eccentric shaft.

#### THE EVIDENCE

The Examiner relies upon the following evidence:

Willeke	US 3,626,739	Dec. 14, 1971
Ossendorf	US 6,112,569	Sep. 5, 2000

#### THE REJECTIONS

The Appellant seeks review of the following rejections:

1. The Examiner rejected claim 4 under 35 U.S.C. § 102(b) as anticipated by Ossendorf.
2. The Examiner rejected claims 1-3 under 35 U.S.C. § 103(a) as unpatentable over Ossendorf and Willeke.

## ISSUES

The Examiner found Ossendorf discloses a piston (15) that is off center with respect to the central vertical plane running through the center of the backup rollers (3, 4) and work rollers (1, 2), and thus Ossendorf discloses an eccentric shaft that constitutes the vertical positioning mechanism of claim 4. Ans. 4. The Examiner found that Ossendorf does not disclose a vertical positioning mechanism being “assigned” to one set of bending blocks and configured as a spindle-type lifting gear as required by claim 1. Ans. 3. The Examiner found that Willeke discloses a device like that of Ossendorf that has a spindle type lifting gear (15, 16) assigned to opposite sides of the device, and the Examiner determined that it would have been obvious to include the spindle type mechanism of Willeke in the device of Ossendorf “for the purpose of acting as a screw down for the backing rolls in order to control the roll thickness and rolling gap by applying pressure on the backup rollers relative [to] the work rolls as taught by Willeke (col. 1, lines 30-4 and col. 3, lines 21-23).” Ans. 3-4.

The Appellant argues claims 1-3 as a group. Br. 7-9. As such, we select claim 1 as the representative claim, and claims 2 and 3 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2007). We treat the patentability of claim 4, which is subject to a separate ground of rejection, separately.

The Appellant contends that the Examiner erred in rejecting claim 4 because Ossendorf uses only piston-cylinder units and does not disclose a vertical positioning mechanism. Br. 8. The Appellant further contends that the Examiner erred in rejecting claims 1-3 because “there is no motivation in

either reference for making the combination argued by the Examiner so as to arrive at the presently claimed invention.” *Id.*

The issues presented by this appeal are:

Has the Appellant established the Examiner erred in finding that Ossendorf discloses the vertical positioning mechanism of claim 4?

Has the Appellant established the Examiner erred in articulating a reason with rational underpinning for combining the teachings of Ossendorf and Willeke in the manner called for in claim 1?

#### FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. The Appellant’s Specification describes that “[t]he invention is not limited to the use of spindle-type lifting gear units, but rather any vertical positioning mechanism can be used, for example, wedges with restricted guidance, a cylinder with clamping head and position sensor, or an eccentric shaft.” Spec. 5:2-6.
2. The Examiner adopted the common every day meaning of the term “eccentric” to mean “deviating from the geometrical center.”  
Ans. 4.
3. The Appellant has not contested the definition of eccentric adopted by the Examiner. Br., *passim*.

4. Ossendorf discloses two first piston-cylinder units 15 that are used to slide first bending blocks 8, 9 vertically to move working rolls 1, 2 toward or away from one another. Ossendorf, col. 3, ll. 26-38. Ossendorf further discloses second bending blocks 16, 17, which are separately vertically movable from first bending blocks 8, 9. Ossendorf, col. 3, ll. 39-45. Second piston-cylinder units 18 are connected to the second bending blocks 16, 17 so as to individually move the second bending blocks 16, 17 vertically in first bending blocks 8, 9. Ossendorf, col. 3, l. 46- col. 4, l. 1.

#### PRINCIPLES OF LAW

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See Ex parte Yamaguchi*, 88 USPQ2d 1606, 1614 (BPAI 2008) [burden on appeal] (on appeal, applicant must show examiner erred); *Ex parte Fu*, 89 USPQ2d 1115, 1123 (BPAI 2008); *Ex parte Catan*, 83 USPQ2d 1569, 1577 (BPAI 2007); and *Ex parte Smith*, 83 USPQ2d 1509, 1519 (BPAI 2007). *See also In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

The Supreme Court held in *KSR Int'l. Co. v. Teleflex Co.*, 550 U.S. 398 (2007), that when the teaching, suggestion, motivation test is applied as

a rigid and mandatory formula, it is incompatible with the Court's precedents. *Id.* at 418. The Court stated that "[o]ne of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." *Id.* at 419-20. The Court held that the Court of Appeals had erred in holding that courts and patent examiners should look only to the problem the patentee was trying to solve. *Id.* at 420. The Court stated that "[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.*

## ANALYSIS

The Examiner found that Ossendorf anticipates claim 4 because it discloses, *inter alia*, a vertical positioning mechanism designed as an eccentric shaft. Ans. 4. The Examiner noted that the Appellant's Specification fails to provide any clear definition of what is considered by the Appellant to be an eccentric shaft. *Id.* We agree. The sole reference in the Appellant's Specification to an eccentric shaft simply states that the vertical positioning mechanism can be an eccentric shaft (Fact 1). Lacking any definition from the Appellant, the Examiner adopted the common every day meaning of the term "eccentric" as "deviating from the geometrical center" (Fact 2).



Based on the interpretation of “eccentric shaft” as a shaft deviating from the geometrical center, the Examiner found that since the shaft of one of Ossendorf’s pistons (18) is off center with respect to the central vertical plane running through the center of the backup rollers (3, 4) and work rollers (1, 2), the shaft is eccentric and thus the piston shaft is a vertical positioning mechanism. Ans. 4 (citing Ossendorf, Figure 1).

The Appellant’s argument, as it relates to the patentability of claim 4 over Ossendorf, is reproduced below:

Turning now to the reference, it can be seen that Ossendorf discloses a bending device for four-high or multi-roll stands. As with DE 22 50 953, Ossendorf only uses piston-cylinder units. There is no disclosure of a vertical positioning mechanism as recited in the presently claimed invention. Specifically, Ossendorf does not disclose a piston-cylinder and a vertical positioning mechanism wherein the vertical lifting mechanism is wedges with restricted guidance, a cylinder with a clamping head and a position sensor, or an eccentric shaft, as in the presently claimed invention.

Br. 6-7.

The Appellant’s argument is conclusory and fails to explain how the Examiner erred in the determination that Ossendorf discloses an eccentric shaft. For example, the Appellant has failed to point to any persuasive evidence in the Appellant’s Specification or elsewhere in the record to show that the claimed eccentric shaft excludes the shaft of a piston. The Appellant

has also not contested the Examiner's interpretation of "eccentric shaft" (Fact 3).

We see no error in the Examiner's finding that Ossendorf's second piston-cylinder units 18 are vertical positioning mechanisms since they effect vertical movement of the second bending blocks 16, 17 (Fact 4). Further, we agree with the Examiner's finding that the shafts of second piston-cylinder units 18 are eccentric to the central vertical plane running through the center of work rolls 1, 2 and support rolls 3, 4. Ossendorf, Figure 1. As such, the Appellant has failed to persuade us of error in the Examiner's finding that Ossendorf discloses the vertical positioning mechanism of claim 4.

The Appellant argues that the Examiner erred in rejecting claims 1-3 because Ossendorf does not disclose the claimed vertical positioning mechanism. Br. 8. The Examiner does not, however, rely on Ossendorf for this element of claim 1. Rather, the Examiner acknowledges that Ossendorf does not disclose a spindle-type lifting gear unit that is assigned to one set of bending blocks. Ans. 3. The Examiner relies on Willeke for the teaching of the vertical positioning mechanism of claims 1-3 and found that it would have been obvious to add a screw-down mechanism to the device of Ossendorf for applying pressure to the backup rollers in order to control the rolling gap and rolling thickness of the strip metal, as suggested by Willeke. Ans. 5. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

*See In re Merck & Co.*, 800 F.2d 1091 (Fed. Cir. 1986); *In re Keller*, 642 F.2d 413 (CCPA 1981).

The Appellant further argues that there is no motivation in either reference for making the combination proposed by the Examiner because “[t]here is no recognition by either reference, or their combination, of the problems being addressed in the present invention.” Br. 8-9. The Examiner provided a reason why one having ordinary skill in the art would have been led to combine the teachings of Ossendorf and Willeke in the manner claimed, and it is not persuasive to argue that the Examiner’s reason is inadequate simply because the proposed modification fails to address the problem the Appellant was trying to solve. *KSR*, 550 U.S. at 420 (“[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.”)

The Appellant further argues that neither reference, nor their combination, suggests combining a piston-cylinder and a spindle-type lifting mechanism in the same device. Br. 9. The Appellant appears to be arguing for a rigid application of the teaching, suggestion, motivation test as a requirement for a legal conclusion of obviousness, an approach that was eschewed by the Court in *KSR*. 550 U.S. at 418. The Examiner has articulated a reason to combine with a rational underpinning based on an explicit teaching in Willeke of the purpose for its spindle-type lifting mechanism (i.e., to act as a screw down for the backing rolls). The

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Appellant has failed to persuade us that the Examiner's reasoning was unreasonable or without rational underpinning.

### CONCLUSIONS

The Appellant has failed to establish that the Examiner erred in finding that Ossendorf discloses the vertical positioning mechanism of claim 4.

The Appellant has failed to establish that the Examiner erred in articulating a reason with rational underpinning for combining the teachings of Ossendorf and Willeke in the manner called for in claim 1.

### DECISION

The decision of the Examiner to reject claims 1-4 is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

### AFFIRMED

Vsh

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